

20 February 2023

Energy & Petrochemicals | Integrated Oil & Gas

PTT (PTT TB)

Buy (Maintained)

Economic Reopening, Better Run Rate; BUY

Target Price (Return): THB46 (37.3%)
 Price (Market Cap): THB33.50 (USD27,656m)
 ESG score: 3.67 (out of 4)
 Avg Daily Turnover (THB/USD) 1,564m/45.5m

- Keep BUY, new THB46 TP from THB51, 37% upside and c.5% yield.** PTT is set to see better 1Q23 net profit after 4Q22's performance – in line with expectations. Its business is likely to increase from global economic reopenings (mainly China) and refinery plants coming back from maintenance shutdowns – although we do have a conservative view on China's gradually improving demand that impacts GRM. We also note PTT's move towards green energy and its attractive dividend yield.
- 1Q23 to be better.** PTT is expected to see a better bottomline in 1Q23 as its upstream oil & gas production business is likely to post lower expenses – this is due to no major loss from impairments on assets in Mozambique and provisions for the class action settlement from the Montara incident in 4Q22. We also believe its oil refineries and petrochemical business will have better demand from the global economic reopening and improving market GRM, given increased demand from China and utilisation rate recoveries after huge maintenance shutdowns in 4Q22. The natural gas sales & marketing wing is also expected to recover following Thailand and the world's economic reopening, in our view.
- 4Q22: QoQ hike, YoY drop.** PTT posted a 4Q22 net profit of THB17.9bn (+101% QoQ, -35% YoY) – in line with expectations. The QoQ hike came from a huge FX gain of THB32.7bn, up from a QoQ loss of THB19.9bn. Stock loss reduced to THB8.7bn (3Q22: -THB13bn). EBITDA stood at THB74bn (-20% QoQ, -27% YoY) on lower global oil prices. PTT's refinery and petrochemical business had lower GRM and petrochemical spreads, as well as huge maintenance shutdowns.
- Continuously developing carbon capture & sequestration (CCS).** The group's exploration & production business has developed CCS capabilities at several of its fields – eg Arthit, Sinphuhorm, and Lang Lebah – and plans to do more at others. CCS is the process of capturing CO2 before it enters the atmosphere – the gas is then transported and stored in deep underground geological formations. PTTEP has a goal of developing net zero carbon processes by 2050. This makes it suitable for long-term investment. PTT plans to: i) Reduce greenhouse gas emissions by 15% by 2030, ii) be carbon neutral by 2040, and iii) see net zero emissions by 2050.
- PTT has been fruitful** in applying ESG principles. We derive an ESG score of 3.7 and apply an 8% premium to our valuation to arrive at our TP. Note: We hold a more conservative outlook to reflect China's gradually improving demand, hence lowering GRM to USD11 from USD12.30, as well as lower marketing margins for the retail business from THB0.90 to THB0.82/litre. TP is then moved to THB46. Still BUY for its attractive 0.9x P/BV (below the historical 1.5x) and yields of 5%. PTT is paying dividends for 2H22 of THB0.70/share after paying THB1.30 for 1H22. Payment date: 28 Apr.

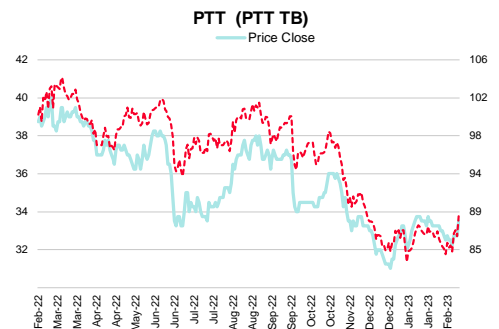
Analyst

Athipu Visavaveja
 +66 2088 9827
athipu.vi@rhbgroup.com



Share Performance (%)

	YTD	1m	3m	6m	12m
Absolute	0.8	0.0	1.5	(11.3)	(16.3)
Relative	1.8	1.8	(0.8)	(12.0)	(12.8)
52-wk Price low/high (THB)	31.0 – 40.0				



Source: Bloomberg

Overall ESG Score: 3.67 (out of 4)

E: GOOD

PTT has set a goal to reduce the group's greenhouse gas emissions by more than 20% by 2030. Its greenhouse gas emission for 2021 was 33.15m tons, within the target set for the year. Other efforts include monitoring and managing water usage, waste management and air quality management.

S: EXCELLENT

PTT invests heavily in its employees through various training programmes that include leadership, compulsory and elective programmes. It has policies on human rights that focus on its human capital and surrounding community. It also offers scholarships and is involved in natural disaster relief efforts. It promotes social enterprises through initiatives like Café Amazon for chance and PTT Group Lounge.

G: EXCELLENT

Most PTT's directors are independent, there is female representation on the board. It ensures appointed directors are skilled and qualified. PTT provides timely, consistent, and accurate information to shareholders. Policies that ensure shareholder rights are protected are in place and practiced.

Forecasts and Valuation	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Total turnover (THBm)	2,258,818	3,367,203	2,633,544	2,584,706	2,595,590
Recurring net profit (THBm)	146,790	160,536	108,251	114,145	120,599
Recurring net profit growth (%)	158.5	9.4	(32.6)	5.4	5.7
Recurring P/E (x)	6.52	5.96	8.84	8.38	7.93
P/B (x)	1.0	0.9	0.9	0.8	0.8
P/CF (x)	4.88	2.41	1.73	3.17	na
Dividend Yield (%)	6.0	6.0	5.4	5.7	5.7
EV/EBITDA (x)	4.95	4.37	4.93	5.02	4.77
Return on average equity (%)	11.9	9.3	10.2	10.2	10.2
Net debt to equity (%)	37.0	50.5	35.6	27.8	20.5

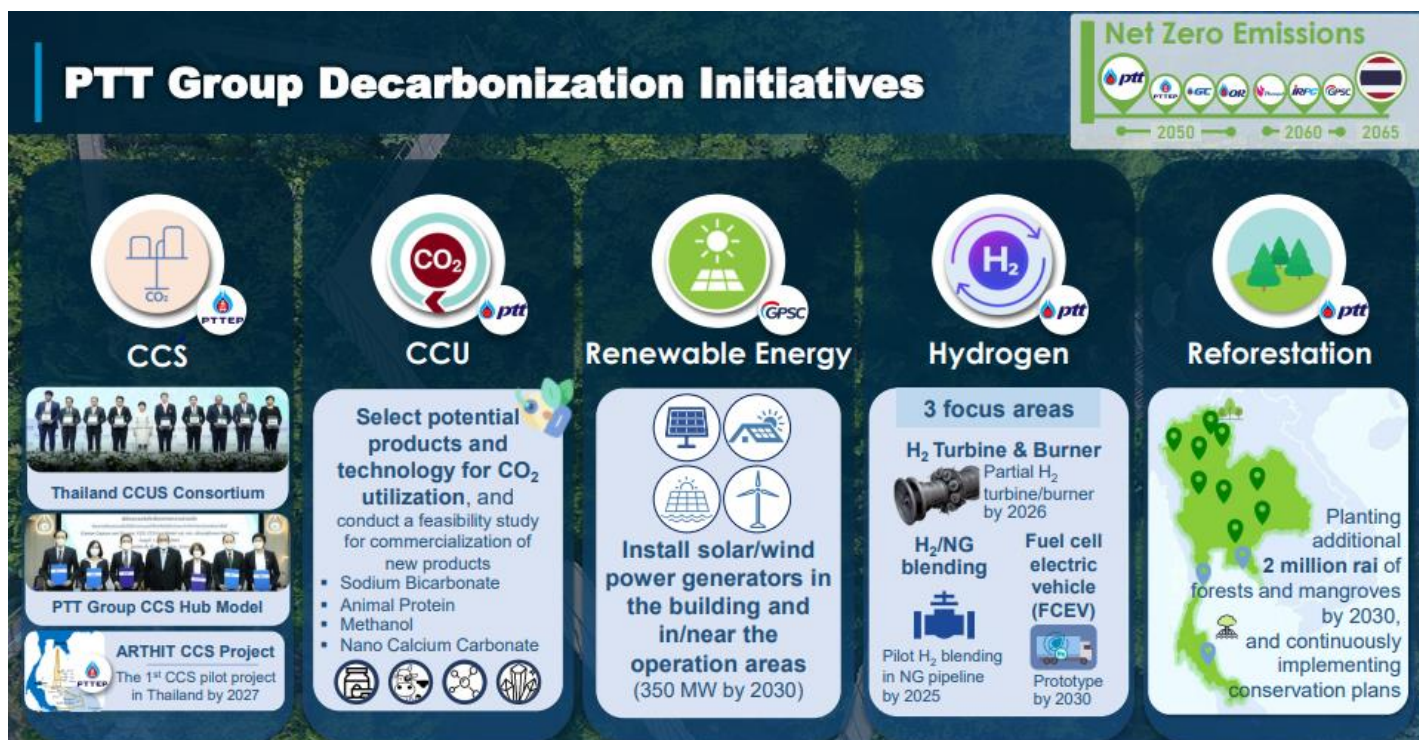
Source: Company data, RHB

Financial Exhibits

Asia	Financial summary (THB)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Thailand	Recurring EPS	5.14	5.62	3.79	4.00	4.22
Energy & Petrochemicals	DPS	2.00	2.00	1.82	1.90	1.90
PTT	BVPS	32.67	36.03	38.00	40.10	42.42
PTT TB	Return on average equity (%)	11.9	9.3	10.2	10.2	10.2
Buy						
	Valuation metrics	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Valuation basis	Recurring P/E (x)	6.52	5.96	8.84	8.38	7.93
P/BV, SOP	P/B (x)	1.0	0.9	0.9	0.8	0.8
	FCF Yield (%)	(2.8)	(29.4)	43.0	16.7	(14.9)
Key drivers	Dividend Yield (%)	6.0	6.0	5.4	5.7	5.7
i. Domestic and global economy;	EV/EBITDA (x)	4.95	4.37	4.93	5.02	4.77
ii. Crude oil and its derivatives prices;	EV/EBIT (x)	7.87	6.90	8.58	8.73	8.21
iii. Demand and supply for its products.						
	Income statement (THBm)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
Key risks	Total turnover	2,258,818	3,367,203	2,633,544	2,584,706	2,595,590
i. Crude oil prices;	Gross profit	376,567	460,477	288,891	268,285	272,537
ii. USD/THB fluctuations;	EBITDA	395,088	456,075	367,941	348,130	351,571
iii. Demand & supply for products;	Depreciation and amortisation	(146,790)	(167,330)	(156,335)	(147,943)	(147,419)
iv. Fluctuating TH/USD rate;	Operating profit	248,298	288,745	211,606	200,187	204,153
v. Demand and supply for products.	Net interest	777	(12,671)	(47,884)	(27,364)	(21,361)
	Pre-tax profit	219,658	212,562	165,530	174,634	184,602
Company Profile	Taxation	(67,591)	(90,462)	(26,746)	(28,293)	(29,988)
As the Thai Government's petroleum business arm, PTT owns diverse businesses: Upstream and downstream oil and gas companies. It also has a coal mining business.	Reported net profit	108,363	91,175	108,251	114,145	120,599
	Recurring net profit	146,790	160,536	108,251	114,145	120,599
	Cash flow (THBm)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
	Change in working capital	162,712	(270,476)	130,342	2,497	(556)
	Cash flow from operations	196,261	397,841	553,995	302,163	(556)
	Capex	(223,184)	(679,144)	(142,190)	(142,185)	(142,180)
	Cash flow from investing activities	(252,600)	(855,002)	(142,582)	(142,576)	(142,571)
	Dividends paid	(57,126)	(57,126)	(51,961)	(54,270)	(54,270)
	Cash flow from financing activities	261,798	507,119	26,595	47,717	47,717
	Cash at beginning of period	332,032	332,033	332,033	639,699	839,810
	Net change in cash	205,459	49,958	438,008	207,304	(95,410)
	Ending balance cash	537,491	381,991	770,041	847,003	744,400
	Balance sheet (THBm)	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
	Total cash and equivalents	332,033	332,033	639,699	839,810	1,044,622
	Tangible fixed assets	1,292,718	1,499,330	1,485,185	1,479,427	1,474,188
	Total investments	106,762	219,108	221,308	223,509	225,710
	Total assets	3,078,019	3,415,632	3,547,367	3,736,138	3,939,647
	Short-term debt	110,912	180,970	180,970	180,970	180,970
	Total long-term debt	766,719	924,943	1,026,930	1,128,917	1,230,903
	Total liabilities	1,605,079	1,881,940	1,950,282	2,046,983	2,150,147
	Total equity	1,472,939	1,533,693	1,597,085	1,689,156	1,789,500
	Total liabilities & equity	3,078,019	3,415,632	3,547,367	3,736,138	3,939,647
	Key metrics	Dec-21	Dec-22	Dec-23F	Dec-24F	Dec-25F
	Revenue growth (%)	39.8	49.1	(21.8)	(1.9)	0.4
	Recurrent EPS growth (%)	158.5	9.4	(32.6)	5.4	5.7
	Gross margin (%)	16.7	13.7	11.0	10.4	10.5
	Operating EBITDA margin (%)	17.5	13.5	14.0	13.5	13.5
	Net profit margin (%)	4.8	2.7	4.1	4.4	4.6
	Dividend payout ratio (%)	52.7	62.7	48.0	47.5	45.0
	Capex/sales (%)	9.9	20.2	5.4	5.5	5.5
	Interest cover (x)	8.82	7.78	3.66	4.30	4.39

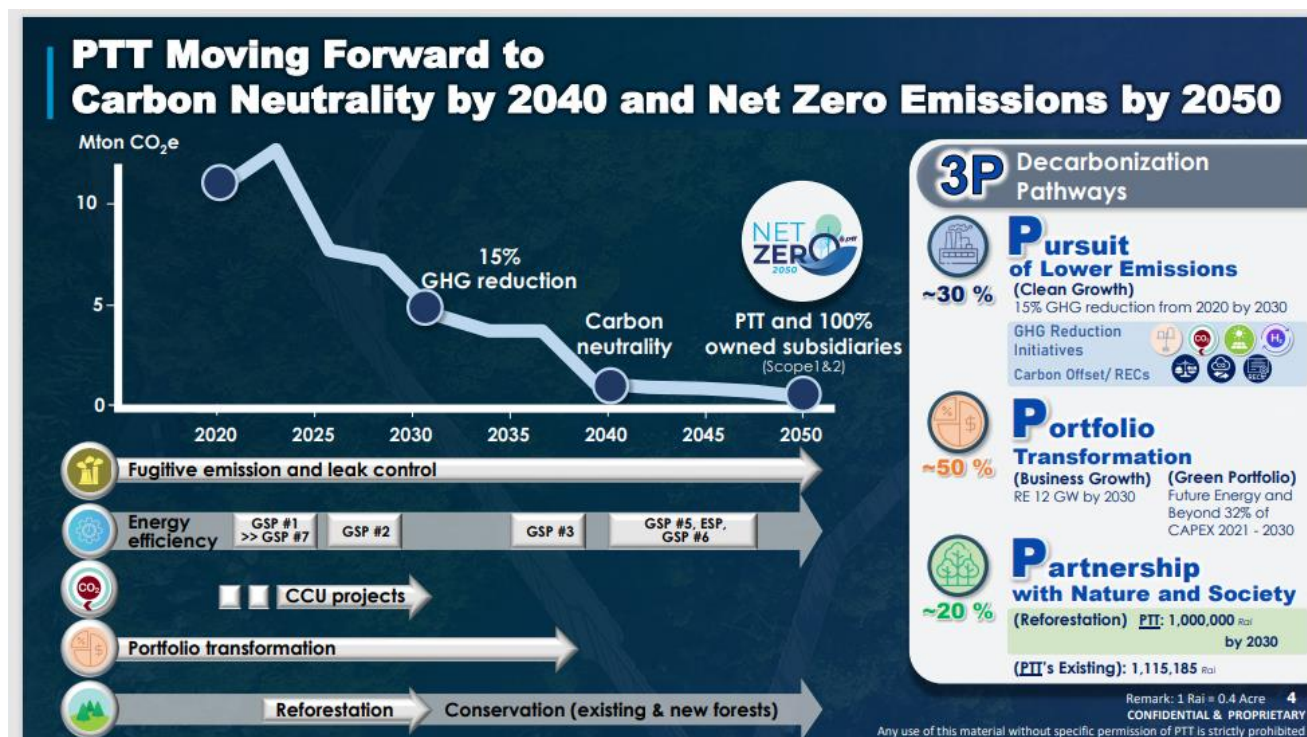
Source: Company data, RHB

Figure 1: PTT's decarbonising initiatives



Source: Company

Figure 2: PTT's movement to carbon neutrality and its net zero plan



Source: Company

Recommendation Chart

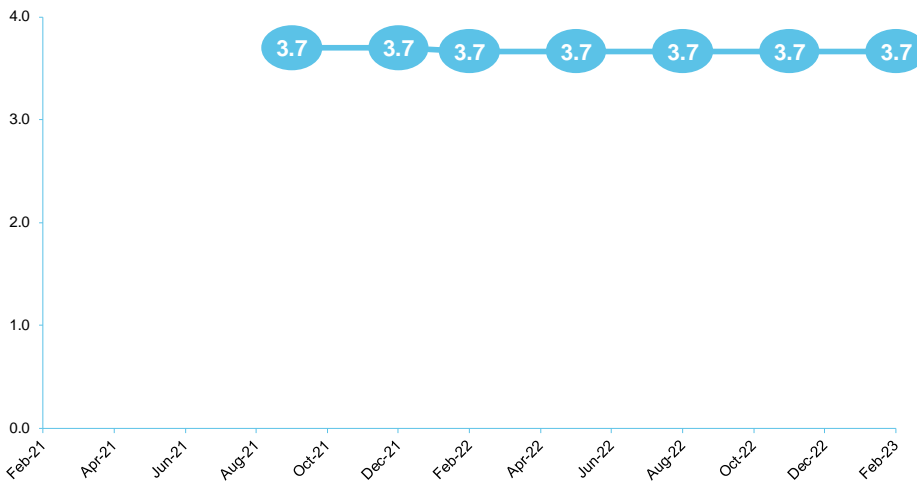


Source: RHB, Bloomberg

Date	Recommendation	Target Price	Price
2022-11-25	Buy	51.0	33.8
2022-11-11	Buy	51.0	34.8
2022-10-03	Buy	51.0	34.0
2022-06-07	Buy	51.0	38.0
2022-02-21	Buy	51.0	38.8
2021-08-12	Buy	51.0	34.5
2021-05-14	Buy	51.5	40.3
2021-02-19	Buy	51.0	40.0
2020-11-11	Buy	46.6	38.3
2020-08-11	Buy	44.9	37.5
2020-08-04	Buy	44.9	38.0
2020-05-29	Neutral	37.3	35.5
2020-05-11	Neutral	37.3	35.5
2020-03-19	Buy	32.8	25.8
2020-02-21	Neutral	43.3	44.5

Source: RHB, Bloomberg

ESG Rating History



Source: RHB

RHB Guide to Investment Ratings

Buy:	Share price may exceed 10% over the next 12 months
Trading Buy:	Share price may exceed 15% over the next 3 months, however longer-term outlook remains uncertain
Neutral:	Share price may fall within the range of +/- 10% over the next 12 months
Take Profit:	Target price has been attained. Look to accumulate at lower levels
Sell:	Share price may fall by more than 10% over the next 12 months
Not Rated:	Stock is not within regular research coverage

Investment Research Disclaimers

RHB has issued this report for information purposes only. This report is intended for circulation amongst RHB and its affiliates' clients generally or such persons as may be deemed eligible by RHB to receive this report and does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. This report is not intended, and should not under any circumstances be construed as, an offer or a solicitation of an offer to buy or sell the securities referred to herein or any related financial instruments.

This report may further consist of, whether in whole or in part, summaries, research, compilations, extracts or analysis that has been prepared by RHB's strategic, joint venture and/or business partners. No representation or warranty (express or implied) is given as to the accuracy or completeness of such information and accordingly investors should make their own informed decisions before relying on the same.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to the applicable laws or regulations. By accepting this report, the recipient hereof (i) represents and warrants that it is lawfully able to receive this document under the laws and regulations of the jurisdiction in which it is located or other applicable laws and (ii) acknowledges and agrees to be bound by the limitations contained herein. Any failure to comply with these limitations may constitute a violation of applicable laws.

All the information contained herein is based upon publicly available information and has been obtained from sources that RHB believes to be reliable and correct at the time of issue of this report. However, such sources have not been independently verified by RHB and/or its affiliates and this report does not purport to contain all information that a prospective investor may require. The opinions expressed herein are RHB's present opinions only and are subject to change without prior notice. RHB is not under any obligation to update or keep current the information and opinions expressed herein or to provide the recipient with access to any additional information. Consequently, RHB does not guarantee, represent or warrant, expressly or impliedly, as to the adequacy, accuracy, reliability, fairness or completeness of the information and opinion contained in this report. Neither RHB (including its officers, directors, associates, connected parties, and/or employees) nor does any of its agents accept any liability for any direct, indirect or consequential losses, loss of profits and/or damages that may arise from the use or reliance of this research report and/or further communications given in relation to this report. Any such responsibility or liability is hereby expressly disclaimed.

Whilst every effort is made to ensure that statement of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable and must not be construed as a representation that the matters referred to therein will occur. Different assumptions by RHB or any other source may yield substantially different results and recommendations contained on one type of research product may differ from recommendations contained in other types of research. The performance of currencies may affect the value of, or income from, the securities or any other financial instruments referenced in this report. Holders of depositary receipts backed by the securities discussed in this report assume currency risk. Past performance is not a guide to future performance. Income from investments may fluctuate. The price or value of the investments to which this report relates, either directly or indirectly, may fall or rise against the interest of investors.

This report may contain comments, estimates, projections, forecasts and expressions of opinion relating to macroeconomic research published by RHB economists of which should not be considered as investment ratings/advice and/or a recommendation by such economists on any securities discussed in this report.

This report does not purport to be comprehensive or to contain all the information that a prospective investor may need in order to make an investment decision. The recipient of this report is making its own independent assessment and decisions regarding any securities or financial instruments referenced herein. Any investment discussed or recommended in this report may be unsuitable for an investor depending on the investor's specific investment objectives and financial position. The material in this report is general information intended for recipients who understand the risks of investing in financial instruments. This report does not take into account whether an investment or course of action and any associated risks are suitable for the recipient. Any recommendations contained in this report must therefore not be relied upon as investment advice based on the recipient's personal circumstances. Investors should make their own independent evaluation of the information contained herein, consider their own investment objective, financial situation and particular needs and seek their own financial, business, legal, tax and other advice regarding the appropriateness of investing in any securities or the investment strategies discussed or recommended in this report.

This report may contain forward-looking statements which are often but not always identified by the use of words such as "believe", "estimate", "intend" and "expect" and statements that an event or result "may", "will" or "might" occur or be achieved and other similar expressions. Such forward-looking statements are based on assumptions made and information currently available to RHB and are subject to known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievement to be materially different from any future results, performance or achievement, expressed or implied by such forward-looking statements. Caution should be taken with respect to such statements and recipients of this report should not place undue reliance on any such forward-looking statements. RHB expressly disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or circumstances after the date of this publication or to reflect the occurrence of unanticipated events.

The use of any website to access this report electronically is done at the recipient's own risk, and it is the recipient's sole responsibility to take precautions to ensure that it is free from viruses or other items of a destructive nature. This report may also provide the addresses of, or contain hyperlinks to, websites. RHB takes no responsibility for the content contained therein. Such addresses or hyperlinks (including addresses or hyperlinks to RHB own website material) are provided solely for the recipient's convenience. The information and the content of the linked site do not in any way form part of this report. Accessing such website or following such link through the report or RHB website shall be at the recipient's own risk.

This report may contain information obtained from third parties. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content.

The research analysts responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously. The research analysts that authored this report are precluded by RHB in all circumstances from trading in the securities or other financial instruments referenced in the report, or from having an interest in the company(ies) that they cover.

The contents of this report is strictly confidential and may not be copied, reproduced, published, distributed, transmitted or passed, in whole or in part, to any other person without the prior express written consent of RHB and/or its affiliates. This report has been delivered to RHB and its affiliates' clients for information purposes only and upon the express understanding that such parties will use it only for the purposes set forth above. By electing to view or accepting a copy of this report, the recipients have agreed that they will not print, copy, videotape, record, hyperlink, download, or otherwise attempt to reproduce or re-transmit (in any form including hard copy or electronic distribution format) the contents of this report. RHB and/or its affiliates accepts no liability whatsoever for the actions of third parties in this respect.

The contents of this report are subject to copyright. Please refer to Restrictions on Distribution below for information regarding the distributors of this report. Recipients must not reproduce or disseminate any content or findings of this report without the express permission of RHB and the distributors.

The securities mentioned in this publication may not be eligible for sale in some states or countries or certain categories of investors. The recipient of this report should have regard to the laws of the recipient's place of domicile when contemplating transactions in the securities or other financial instruments referred to herein. The securities discussed in this report may not have been registered in such jurisdiction. Without prejudice to the foregoing, the recipient is to note that additional disclaimers, warnings or qualifications may apply based on geographical location of the person or entity receiving this report.

The term "RHB" shall denote, where appropriate, the relevant entity distributing or disseminating the report in the particular jurisdiction referenced below, or, in every other case, RHB Investment Bank Berhad and its affiliates, subsidiaries and related companies.

RESTRICTIONS ON DISTRIBUTION

Malaysia

This report is issued and distributed in Malaysia by RHB Investment Bank Berhad ("RHBIB"). The views and opinions in this report are our own as of the date hereof and is subject to change. If the Financial Services and Markets Act of the United Kingdom or the rules of the Financial Conduct Authority apply to a recipient, our obligations owed to such recipient therein are unaffected. RHBIB has no obligation to update its opinion or the information in this report.

Thailand

This report is issued and distributed in the Kingdom of Thailand by RHB Securities (Thailand) PCL, a licensed securities company that is authorised by the Ministry of Finance, regulated by the Securities and Exchange Commission of Thailand and is a

member of the Stock Exchange of Thailand. The Thai Institute of Directors Association has disclosed the Corporate Governance Report of Thai Listed Companies made pursuant to the policy of the Securities and Exchange Commission of Thailand. RHB Securities (Thailand) PCL does not endorse, confirm nor certify the result of the Corporate Governance Report of Thai Listed Companies.

Indonesia

This report is issued and distributed in Indonesia by PT RHB Sekuritas Indonesia. This research does not constitute an offering document and it should not be construed as an offer of securities in Indonesia. Any securities offered or sold, directly or indirectly, in Indonesia or to any Indonesian citizen or corporation (wherever located) or to any Indonesian resident in a manner which constitutes a public offering under Indonesian laws and regulations must comply with the prevailing Indonesian laws and regulations.

Singapore

This report is issued and distributed in Singapore by RHB Bank Berhad (through its Singapore branch) which is an exempt capital markets services entity and an exempt financial adviser regulated by the Monetary Authority of Singapore. RHB Bank Berhad (through its Singapore branch) may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, RHB Bank Berhad (through its Singapore branch) accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact RHB Bank Berhad (through its Singapore branch) in respect of any matter arising from or in connection with the report.

United States

This report was prepared by RHB is meant for distribution solely and directly to "major" U.S. institutional investors as defined under, and pursuant to, the requirements of Rule 15a-6 under the U.S. Securities and Exchange Act of 1934, as amended (the "Exchange Act") via a registered U.S. broker-dealer as appointed by RHB from time to time. Accordingly, any access to this report via Bursa Marketplace or any other Electronic Services Provider is not intended for any party other than "major" US institutional investors (via a registered U.S broker-dealer), nor shall be deemed as solicitation by RHB in any manner. RHB is not registered as a broker-dealer in the United States and currently has not appointed a U.S. broker-dealer. Additionally, RHB does not offer brokerage services to U.S. persons. Any order for the purchase or sale of all securities discussed herein must be placed with and through a registered U.S. broker-dealer as appointed by RHB from time to time as required by the Exchange Act Rule 15a-6. For avoidance of doubt, RHB reiterates that it has not appointed any U.S. broker-dealer during the issuance of this report. This report is confidential and not intended for distribution to, or use by, persons other than the recipient and its employees, agents and advisors, as applicable. Additionally, where research is distributed via Electronic Service Provider, the analysts whose names appear in this report are not registered or qualified as research analysts in the United States and are not associated persons of any registered U.S. broker-dealer as appointed by RHB from time to time and therefore may not be subject to any applicable restrictions under Financial Industry Regulatory Authority ("FINRA") rules on communications with a subject company, public appearances and personal trading. Investing in any non-U.S. securities or related financial instruments discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in the United States. The financial instruments discussed in this report may not be suitable for all investors. Transactions in foreign markets may be subject to regulations that differ from or offer less protection than those in the United States.

DISCLOSURE OF CONFLICTS OF INTEREST

RHB Investment Bank Berhad, its subsidiaries (including its regional offices) and associated companies, ("RHBIB Group") form a diversified financial group, undertaking various investment banking activities which include, amongst others, underwriting, securities trading, market making and corporate finance advisory.

As a result of the same, in the ordinary course of its business, any member of the RHBIB Group, may, from time to time, have business relationships with, hold any positions in the securities and/or capital market products (including but not limited to shares, warrants, and/or derivatives), trade or otherwise effect transactions for its own account or the account of its customers or perform and/or solicit investment, advisory or other services from any of the subject company(ies) covered in this research report.

While the RHBIB Group will ensure that there are sufficient information barriers and internal controls in place where necessary, to prevent/manage any conflicts of interest to ensure the independence of this report, investors should also be aware that such conflict of interest may exist in view of the investment banking activities undertaken by the RHBIB Group as mentioned above and should exercise their own judgement before making any investment decisions.

In Singapore, investment research activities are conducted under RHB Bank Berhad (through its Singapore branch), and the disclaimers above similarly apply.

Malaysia

Save as disclosed in the following link [RHB Research conflict disclosures – Feb 2023](#) and to the best of our knowledge, RHBIB hereby declares that:

1. RHBIB does not have a financial interest in the securities or other capital market products of the subject company(ies) covered in this report.
2. RHBIB is not a market maker in the securities or capital market products of the subject company(ies) covered in this report.
3. None of RHBIB's staff or associated person serve as a director or board member* of the subject company(ies) covered in this report
**For the avoidance of doubt, the confirmation is only limited to the staff of research department*
4. RHBIB did not receive compensation for investment banking or corporate finance services from the subject company in the past 12 months.
5. RHBIB did not receive compensation or benefit (including gift and special cost arrangement e.g. company/issuer-sponsored and paid trip) in relation to the production of this report.

Thailand

Save as disclosed in the following link [RHB Research conflict disclosures – Feb 2023](#) and to the best of our knowledge, RHB Securities (Thailand) PCL hereby declares that:

1. RHB Securities (Thailand) PCL does not have a financial interest in the securities or other capital market products of the subject company(ies) covered in this report.
2. RHB Securities (Thailand) PCL is not a market maker in the securities or capital market products of the subject company(ies) covered in this report.
3. None of RHB Securities (Thailand) PCL's staff or associated person serve as a director or board member* of the subject company(ies) covered in this report
**For the avoidance of doubt, the confirmation is only limited to the staff of research department*
4. RHB Securities (Thailand) PCL did not receive compensation for investment banking or corporate finance services from the subject company in the past 12 months.
5. RHB Securities (Thailand) PCL did not receive compensation or benefit (including gift and special cost arrangement e.g. company/issuer-sponsored and paid trip) in relation to the production of this report.

Indonesia

Save as disclosed in the following link [RHB Research conflict disclosures – Feb 2023](#) and to the best of our knowledge, PT RHB Sekuritas Indonesia hereby declares that:

1. PT RHB Sekuritas Indonesia and its investment analysts, does not have any interest in the securities of the subject company(ies) covered in this report.
For the avoidance of doubt, interest in securities include the following:
 - a) Holding directly or indirectly, individually or jointly own/hold securities or entitled for dividends, interest or proceeds from the sale or exercise of the subject company's securities covered in this report*;
 - b) Being bound by an agreement to purchase securities or has the right to transfer the securities or has the right to pre subscribe the securities*.
 - c) Being bound or required to buy the remaining securities that are not subscribed/placed out pursuant to an Initial Public Offering*.
 - d) Managing or jointly with other parties managing such parties as referred to in (a), (b) or (c) above.
2. PT RHB Sekuritas Indonesia is not a market maker in the securities or capital market products of the subject company(ies) covered in this report.
3. None of PT RHB Sekuritas Indonesia's staff** or associated person serve as a director or board member* of the subject company(ies) covered in this report.
4. PT RHB Sekuritas Indonesia did not receive compensation for investment banking or corporate finance services from the subject company in the past 12 months.
5. PT RHB Sekuritas Indonesia** did not receive compensation or benefit (including gift and special cost arrangement e.g. company/issuer-sponsored and paid trip) in relation to the production of this report:

Notes:

**The overall disclosure is limited to information pertaining to PT RHB Sekuritas Indonesia only.*

***The disclosure is limited to Research staff of PT RHB Sekuritas Indonesia only.*

Singapore

Save as disclosed in the following link [RHB Research conflict disclosures – Feb 2023](#) and to the best of our knowledge, the Singapore Research department of RHB Bank Berhad (through its Singapore branch) hereby declares that:

1. RHB Bank Berhad, its subsidiaries and/or associated companies do not make a market in any issuer covered by the Singapore research analysts in this report.
2. RHB Bank Berhad, its subsidiaries and/or its associated companies and its analysts do not have a financial interest (including a shareholding of 1% or more) in the issuer covered by the Singapore research analysts in this report.
3. RHB Bank Berhad's Singapore research staff or connected persons do not serve on the board or trustee positions of the issuer covered by the Singapore research analysts in this report.
4. RHB Bank Berhad, its subsidiaries and/or its associated companies do not have and have not within the last 12 months had any corporate finance advisory relationship with the issuer covered by the Singapore research analysts in this report or any other relationship that may create a potential conflict of interest.
5. RHB Bank Berhad's Singapore research analysts, or person associated or connected to it do not have any interest in the acquisition or disposal of the securities, specified securities based derivatives contracts or units in a collective investment scheme covered by the Singapore research analysts in this report.
6. RHB Bank Berhad's Singapore research analysts do not receive any compensation or benefit in connection with the production of this research report or recommendation on the issuer covered by the Singapore research analysts.

Analyst Certification

The analyst(s) who prepared this report, and their associates hereby, certify that:

(1) they do not have any financial interest in the securities or other capital market products of the subject companies mentioned in this report, except for:

Analyst	Company
-	-

(2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.



KUALA LUMPUR

RHB Investment Bank Bhd
Level 3A, Tower One, RHB Centre
Jalan Tun Razak
Kuala Lumpur 50400
Malaysia
Tel : +603 9280 8888
Fax : +603 9200 2216

JAKARTA

PT RHB Sekuritas Indonesia
Revenue Tower, 11th Floor, District 8 - SCBD
Jl. Jendral Sudirman Kav 52-53
Jakarta 12190
Indonesia
Tel : +6221 509 39 888
Fax : +6221 509 39 777

BANGKOK

RHB Securities (Thailand) PCL
10th Floor, Sathorn Square Office Tower
98, North Sathorn Road, Silom
Bangrak, Bangkok 10500
Thailand
Tel: +66 2088 9999
Fax :+66 2088 9799

SINGAPORE

RHB Bank Berhad (Singapore branch)
90 Cecil Street
#04-00 RHB Bank Building
Singapore 069531
Fax: +65 6509 0470

Corporate Governance Report Rating 2022 (CG Score) as of 27 Oct 2022



Companies with Excellent CG Scoring by alphabetical order

AAV	AWC	BWG	CSS	FSMART	ILINK	LALIN	MST	PDG	Q-CON	SCN	SPRC	THANA	TQM	UV
ADVANC	AYUD	CENTEL	DDD	FVC	ILM	LHFG	MTC	PDJ	QH	SDC	SPVI	THANI	TRC	VCOM
AF	BAFS	CFRESH	DELTA	GC	IND	LIT	MVP	PG	QTC	SEAFCO	SSC	THCOM	TRUE	VGI
AH	BAM	CGH	DEMCO	GEL	INTUCH	LOXLEY	NCL	PHOL	RATCH	SEAOIL	SSSC	THG	TSC	VIIH
AIRA	BANPU	CHEWA	DOHOME	GFPT	IP	LPN	NEP	PLANB	RBF	SE-ED	SST	THIP	TSR	WACOAL
AJ	BAY	CHO	DRT	GGC	IRC	LRH	NER	PLANET	RS	SELIC	STA	THRE	TSTE	WAVE
AKP	BBIK	CIMBT	DTAC	GLAND	IRPC	LST	NKI	PLAT	S	SENA	STEC	THREL	TSTH	WHA
ALLA	BBL	CK	DUSIT	GLOBAL	ITEL	MACO	NOBLE	PORT	S&J	SENAJ	STGT	TIPCO	TTA	WHAUP
ALT	BCP	CKP	EA	GPI	IVL	MAJOR	NSI	PPS	SAAM	SGF	STI	TISCO	TTB	WICE
AMA	BDMS	CM	EASTW	GPSC	JTS	MAKRO	NOBLE	PR9	SABINA	SHR	SUN	TK	TTCL	WINNER
AMARIN	BEM	CNT	ECF	GRAMMY	JWD	MALEE	NSI	PREB	SAMART	SICT	SUSCO	TKN	TTW	XPG
AMATA	BEYOND	COLOR	ECL	GULF	K	MBK	NVD	PRG	SAMTEL	SIRI	SUTHAI	TKS	TU	ZEN
ANAN	BGC	COM7	EE	GUNKUL	KBANK	MC	NYT	PRM	SAT	SIS	SVI	TKT	TVDH	
AOT	BGRIM	COMAN	EGCO	HANA	KCE	MCOT	OISHI	PSH	SC	SITHAI	SYMC	TMILL	TVI	
AP	BIZ	COTTO	EPG	HARN	KEX	METCO	OR	PSL	SCB	SMP	SYNTEC	TMT	TVO	
APURE	BKI	CPALL	ETC	HENG	KGI	MFEC	ORI	PTG	SCC	SNC	TACC	TNDT	TPWC	
ARIP	BOL	CPF	ETE	HMPRO	KKP	MINT	OSP	PTT	SCC	SONIC	TASCO	TNITY	U	
ASP	BPP	CPI	FN	ICC	KSL	MONO	OTO	PTTEP	SCG	SORKON	TCAP	TOA	UAC	
ASW	BRR	CPN	FNS	ICHI	KTB	MOONG	PAP	PTTGC	SCGP	SPALI	TEAMG	TOP	UBIS	
AUCT	BTS	CRC	FPI	III	KTC	MSC	PCSGH	PYLON	SCM	SPI	TFMAMA	TPBI	UPOIC	








Companies with Very Good CG Scoring by alphabetical order

2S	BCH	CV	IMH	MBAX	PICO	SABUY	SRICHA	TPAC	XO
7UP	BE8	CWT	INET	MEGA	PIMO	SAK	SSF	TPCS	YUASA
ABICO	BEC	DCC	INGRS	META	PIN	SALEE	SSP	TPIPL	ZIGA
ABM	SCAP	DHOME	INSET	MFC	PJW	SAMCO	STANLY	TPIPP	
ACE	BH	DITTO	INSURE	MGT	PL	SANKO	STC	TPLAS	
ACG	BIG	DMT	IRCP	MICRO	PLE	SAPPE	STPI	TPS	
ADB	BJC	DOD	IT	MILL	PM	SAWAD	SUC	TQR	
ADD	BJCHI	DPAINT	ITD	MITSIB	PMTA	SCI	SVOA	TRITN	
AEONTS	BLA	DV8	J	MK	PPP	SCP	SVT	TRT	
AGE	BR	EASON	JAS	MODREN	PPPM	SE	SWC	TRU	
AHC	BRI	EFORL	JCK	MTI	PRAPAT	SECURE	SYNEX	TRV	
AIE	BROOK	ERW	JCKH	NBC	PRECHA	SFLEX	TAE	TSE	
AIT	BSM	ESSO	JMT	NCAP	PRIME	SFP	TAKUNI	TVT	
ALUCON	BYD	ESTAR	JR	NCH	PRIN	SFT	TCC	TWP	
AMANAH	CBG	FE	KBS	NDR	PRINC	SGP	TCMC	UBE	
AMR	CEN	FLOYD	KCAR	NETBAY	PROEN	SIAM	TFG	UEC	
APCO	CHARAN	FSS	KIAT	NEX	PROS	SINGER	TFI	UKEM	
APCS	CHAYO	FTE	KISS	NINE	PROUD	SKE	TFM	UMI	
AQUA	CHG	GBX	KK	NATION	PSG	SKN	TGH	UOBKH	
ARIN	CHOTI	GCAP	KOOL	NNCL	PSTC	SKR	TIDLOR	UP	
ARROW	CHOW	GENCO	KTIS	NOVA	PT	SLP	TIGER	UPF	
AS	CI	GJS	KUMWEL	NPK	PTC	SMART	TIPH	UTP	
ASAP	CIG	GTB	KUN	NRF	QLT	SMD	TITLE	VIBHA	
ASIA	CITY	GYT	KWC	NTV	RCL	SMIT	TM	VL	
ASIAN	CIVIL	HEMP	KWM	NUSA	RICHY	SMT	TMC	VPO	
ASIMAR	CMC	HPT	L&E	NWR	RJH	SNNP	TMD	VRANDA	
ASK	CPL	HTC	LDC	OCC	ROJNA	SNP	TMI	WGE	
ASN	CPW	HUMAN	LEO	OGC	RPC	SO	TNL	WIJK	
ATP30	CRANE	HYDRO	LH	ONEE	RT	SPA	TNP	WIN	
B	CRD	IGN	LHK	PACO	RWI	SPC	TNR	WINMED	
BA	CSC	IFS	M	PATO	S11	SPCG	TOG	WORK	
BC	CSP	IIG	MATCH	PB	SA	SR	TPA	WP	



Companies with Good CG Scoring by alphabetical order

A	BM	CTW	GSC	LEE	NFC	RPH	PTECH	TRUBB
A5	BROOK	D	HL	LPH	NSL	RSP	TC	TTI
AI	BSBM	DCON	HTECH	MATI	NV	SIMAT	TCCC	TYCN
ALL	BTNC	EKH	IHL	M-CHAI	PAF	SISB	TCJ	UMS
ALPHAX	CAZ	EMC	INOX	MCS	PEACE	SK	TEAM	UNIQ
AMC	CCP	EP	JAK	MDX	PF	SOLAR	THE	UPA
APP	CGD	EVER	JMART	MENA	PK	SPACK	THMUI	UREKA
AQ	CMAN	F&D	JSP	MJD	PPM	SPG	TKC	VARO
AU	CMO	FMT	JUBILE	MORE	PRAKIT	SQ	TNH	W
B52	CMR	GIFT	KASET	MPIC	PTL	STARK	TNPC	WFX
BEAUTY	CPANEL	GLOCON	KCM	MUD	RAM	STECH	TOPP	WPH
BGT	CPT	GLORY	KWI	NC	ROCK	SUPER	TPCH	YGG
BLAND	CSR	GREEN	KYE	NEWS	RP	SVH	TPOLY	

Score Range	Number of Logo	Description	IOD (IOD Disclaimer)
90-100		Excellent	Disclaimer: The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an assessment of operation and is not based on inside information. The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date or when there is any change to the relevant information. Nevertheless, RHB Securities (Thailand) Public Company Limited does not confirm, verify, or certify the accuracy and completeness of such survey result.
80-89		Very Good	
70-79		Good	การเปิดเผยผลการสำรวจของสมาคมส่งเสริมสถาบันกรรมการบริษัทไทย (IOD) ในเรื่องการกำกับดูแลกิจการ (Corporate Governance) นี้เป็นการดำเนินการตามนโยบายของสำนักงานคณะกรรมการกำกับหลักทรัพย์และตลาดหลักทรัพย์ โดยการสำรวจของ IOD เป็นการสำรวจและประเมินจากข้อมูลของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยและตลาดหลักทรัพย์เอ็มเอไอ ที่มีการเปิดเผยต่อสาธารณะและเป็นข้อมูลที่ผู้ลงทุนทั่วไปสามารถเข้าถึงได้ ดังนั้นผลสำรวจดังกล่าวจึงเป็นการนำเสนอในมุมมองของบุคคลภายนอกโดยไม่ได้เป็นการประเมินการปฏิบัติและมีได้มีการใช้ข้อมูลภายในในการประเมิน
60-69		Satisfactory	อนึ่ง ผลการสำรวจดังกล่าว เป็นการสำรวจ ณ วันที่ปรากฏในรายงานการกำกับดูแลกิจการบริษัทจดทะเบียนไทยเท่านั้น ดังนั้นผลการสำรวจจึงอาจเปลี่ยนแปลงได้ภายหลังจากวันดังกล่าว ทั้งนี้บริษัทหลักทรัพย์ อาร์เอชบี จำกัด (มหาชน) มิได้ยืนยันหรือรับรองถึงความถูกต้องของผลการสำรวจดังกล่าวแต่อย่างใด
50-59		Pass	

Source : <http://www.thai-iod.com/th/projects-2.asp>

Anti-Corruption Progress Indicator

Level 5: Extended

ADVANC	GLOBAL	QH
ANAN	GPSC	RATCH
BBL	HMPRO	ROBINS
BCH	IRPC	SCC
BDMS	KBANK	SIRI
BIGC	KCE	SPALI
CK	KKP	STEC
DCC	KTB	TCAP
DELTA	LPH	TISCO
DRT	PACE	TMT
EGCO	PTT	TOP
GFPT	PTTGC	

Level 4: Certified

AAV	ERW	SAPPE	CPN
AP	GLOW	SAWAD	DTAC
BA	GUNKUL	SCB	PTTEP
BANPU	ILINK	SCN	PYLON
BCP	KTC	SEAFCO	
BH	LH	SVI	
BJCHI	LPN	TASCO	
CBG	MAKRO	TKN	
CENTEL	MALEE	TMB	
CHG	MINT	TRT	
CKP	MODERN	TRUE	
CPF	NOK	TVO	

Level 3: Established

BEM	MTLS	SPRC
CPALL	SCI	

No progress

AOT	BPP	FN
BCPG	BTS	TPCH

Source : www.cgthailand.org

Disclaimer: The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by the relevant institution as disclosed by the Office of the Securities and Exchange Commission, is made in order to comply with the policy and sustainable development plan for the listed companies. The relevant institution made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, RHB Securities (Thailand) Public Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment result.

การเปิดเผยการประเมินดัชนีชี้วัดความคืบหน้าการป้องกันกำกับการทุจริตคอร์รัปชัน (Anti-corruption Progress Indicators) ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยที่จัดทำโดยสถาบันที่เกี่ยวข้องซึ่งมีการเปิดเผยโดยสำนักงานคณะกรรมการกำกับหลักทรัพย์และตลาดหลักทรัพย์นี้เป็นการดำเนินการตามนโยบาย และตามแผนพัฒนาความยั่งยืนสำหรับบริษัทจดทะเบียนโดยผลการประเมินดังกล่าว สถาบันที่เกี่ยวข้องอาศัยข้อมูลที่ได้รับจากบริษัทจดทะเบียนตามที่บริษัทจดทะเบียนได้ระบุในแบบแสดง ข้อมูลเพื่อการประเมิน Anti-Corruption ซึ่งอ้างอิงข้อมูลจากแบบแสดงรายการข้อมูลประจำปี แบบ (56-1) รายงานประจำปี แบบ (56-2) หรือในเอกสารหรือรายงานอื่นที่เกี่ยวข้องของบริษัทจดทะเบียนนั้น แล้วแต่กรณี ดังนั้น ผลการประเมินดังกล่าวจึงเป็นการนำเสนอในมุมมอง ของสถาบันที่เกี่ยวข้องซึ่งเป็นบุคคลภายนอก โดยมิได้เป็นการประเมินการปฏิบัติของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย และมีได้ใช้ข้อมูลภายในเพื่อการประเมิน เนื่องจากผลการประเมินดังกล่าวเป็นเพียงผลการประเมิน ณ วันที่ปรากฏในผลการประเมินเท่านั้น ดังนั้น ผลการประเมินจึงอาจเปลี่ยนแปลง ได้ภายหลังจากวันดังกล่าว หรือรับรองความถูกต้องครบถ้วนของผลประเมินดังกล่าวแต่อย่างใด ทั้งนี้บริษัทหลักทรัพย์ อาร์เอชบี จำกัด (มหาชน) มิได้ยืนยันหรือรับรองความถูกต้องของผลการสำรวจ